

IN THE CLAIMS

This listing of claims replaces all prior listings:

1. (previously presented) A person authentication application data processing system for performing a person authentication process by comparing a template extracted from a person identification certificate, the template including person identification data of an individual user who uses an information processing apparatus, and user input sampling information, said person authentication application data processing system comprising:

an information processing apparatus that performs person authentication; and
a person identification certificate authority that issues person identification

certificates,

wherein said information processing apparatus retrieves a person identification certificate for person authentication based on user input information, and, when the information processing apparatus determines that the person identification certificate has not been received from the person identification certificate authority and stored locally in a local storage device of the information processing apparatus, outputs a request for issuing a person identification certificate to the person identification certificate authority,

said person identification certificate authority creates a person identification certificate including an encrypted template, which can be decrypted in said information processing apparatus, and issues the person identification certificate responsive to the request from the information processing apparatus, and

said information processing apparatus stores the person identification certificate issued from said person identification certificate authority in the storage device of the information processing apparatus.

2. (previously presented) A person authentication application data processing system according to Claim 1, wherein, when said information processing apparatus stores a newly obtained person identification certificate in the storage device, and when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus creates pair information of identifiers of each person identification certificate and stores the pair information in the storage device.

3. (previously presented) A person authentication application data processing system according to Claim 1, further comprising a certificate authority that issues public key certificates,

wherein, said information processing apparatus retrieves a public key certificate used during data communication with an external apparatus, with stored data of the storage device of the information processing apparatus being used as the retrieval target on the basis of the user input information, creates a pair of a public key and a secret key when the applicable public key certificate cannot be extracted, transmits the created public key to the person identification certificate authority which is the issuing entity of the public key certificate, and makes a request for issuing a person identification certificate,

said person identification certificate authority performs issues a public key certificate corresponding to an individual user or a public key certificate corresponding to said information processing apparatus, and

said information processing apparatus stores the public key certificate issued from said certificate authority in the storage device of the information processing apparatus.

4. (previously presented) A person authentication application data processing system according to Claim 3, wherein, in the process for storing the newly obtained person identification certificate in the storage device, when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus creates pair information of identifiers of each certificate and stores the pair information in the storage device.

5. (previously presented) A person authentication application data processing system according to Claim 3, wherein, in the process for storing the newly obtained person identification certificate in the storage device, when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus creates pair information of identifiers of each certificate, stores the pair information in the storage device, and registers a process identifier which identifies a process including services to be used.

6. (previously presented) A person authentication application data processing system according to Claim 1, further comprising a service distribution device in which various services such as content distribution can be received from a service provider under the control of a service registration server on the condition of user registration for the service registration server,

wherein said information processing apparatus performs a person authentication process based on a verification process between the template extracted from the person identification certificate and user input sampling information, the template being person identification data of an individual user who uses the information processing apparatus, and performs user registration for said service registration server on the condition that person authentication is established.

7. (previously presented) A person authentication application data processing system according to Claim 1, further comprising a service distribution device in which various services such as content distribution can be received from a service provider under the control of a service registration server on the condition of user registration for the service registration server,

wherein said information processing apparatus performs mutual authentication with said service provider by using a public key certificate corresponding to an individual user or a public key certificate corresponding to said information processing apparatus in a process for receiving service distribution from said service provider, and

said service provider provides services for said information processing apparatus on the condition that it is confirmed that the public key certificate used for said mutual authentication corresponds to an authorized user or device registered in said service registration server and said mutual authentication is established.

8. (original) A person authentication application data processing system according to Claim 1, wherein data communication between said information processing apparatus as a person authentication execution entity and the person identification certificate authority as a person identification certificate issuing entity is performed on the condition that the mutual authentication process is established.

9. (previously presented) A person authentication application data processing system according to Claim 1, wherein, for data communication between said information processing apparatus as a person authentication execution entity and the person identification certificate authority as a person identification certificate issuing entity, a data transmission device creates an electronic signature for transmission data, and a receiving device verifies the electronic signature.

10. (original) A person authentication application data processing system according to Claim 1, wherein an encryption key used to encrypt the template stored in the person identification certificate issued from said person identification certificate authority is a public key which is set for said information processing apparatus or an individual user.

11. (previously presented) A person authentication application data processing system according to Claim 1, wherein said template includes at least one of biometric information and non-biometric information and a password, the biometric information selected from the group consisting of fingerprint information, retina pattern information, iris pattern information, voice print information, and handwriting information, the non-biometric information selected from the group consisting of such as a seal, a passport, a driver's license, and a card.

12. (previously presented) A person authentication application data processing method for performing a person authentication process by comparing a template extracted from a person identification certificate, the template including person identification data of an individual user who uses an information processing apparatus and user input sampling information, said person authentication application data processing method comprising:

- a step for providing an information processing apparatus as a person authentication execution entity and a person identification certificate authority as a person identification certificate issuing entity;

- a step in which said information processing apparatus retrieves a person identification certificate for person authentication based on user input information, and, when the information processing apparatus determines that the person identification certificate has not been received from the person identification certificate authority and stored locally in a local storage device of the information processing apparatus, outputs a request for issuing a person

identification certificate to the person identification certificate authority which is a person identification certificate issuing entity;

a step in which said person identification certificate authority creates a person identification certificate including an encoded template, which can be decrypted in said information processing apparatus, and issues the person identification certificate responsive to the request from the information processing apparatus; and

a step in which said information processing apparatus stores the person identification certificate issued from said person identification certificate authority in the storage device of the information processing apparatus.

13. (previously presented) A person authentication application data processing method according to Claim 12, wherein, when said information processing apparatus stores a newly obtained person identification certificate in the storage device, and when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus creates pair information of identifiers of each person identification certificate and stores the pair information in the storage device.

14. (previously presented) A person authentication application data processing method according to Claim 12, further comprising:

a step for providing a certificate authority as a public key certificate issuing entity;

a step in which said information processing apparatus retrieves a public key certificate used during data communication with an external apparatus, with stored data of the storage device of the information processing apparatus being used as the retrieval target on the basis of the user input information, creates a pair of a public key and a secret key when the applicable public key certificate cannot be extracted, transmits the created public key to the person identification certificate authority which is the issuing entity of the public key certificate, and makes a request for issuing a person identification certificate;

a step in which said person identification certificate authority issues a public key certificate corresponding to an individual user or a public key certificate corresponding to said information processing apparatus; and

a step in which said information processing apparatus stores the public key certificate issued from said certificate authority in the storage device of the information processing apparatus.

15. (previously presented) A person authentication application data processing method according to Claim 14, wherein, in the process for storing the newly obtained person identification certificate in the storage device, when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus creates pair information of identifiers of each certificate and stores the pair information in the storage device.

16. (previously presented) A person authentication application data processing method according to Claim 14, wherein, in the process for storing the newly obtained person identification certificate in the storage device, when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus creates pair information of identifiers of each certificate, stores the pair information in the storage device, and registers a process identifier which identifies a process including services to be used.

17. (previously presented) A person authentication application data processing method according to Claim 12, further comprising:
a step for providing a service distribution device in which various services such as content distribution can be received from a service provider under the control of a service registration server on the condition of user registration for the service registration server; and
a step in which said information processing apparatus performs a person authentication process based on a verification process between a template extracted from the person identification certificate and user input sampling information, the template being person identification data of an individual user who uses the information processing apparatus, and performs user registration for said service registration server on the condition that person authentication is established.

18. (previously presented) A person authentication application data processing method according to Claim 12, further comprising:

a step for providing a service distribution device in which various services such as content distribution can be received from a service provider under the control of a service registration server on the condition of user registration for the service registration server;

a step in which, in a process for receiving service distribution from said service provider, said information processing apparatus performs mutual authentication with said service provider by using a public key certificate corresponding to an individual user who uses the information processing apparatus or a public key certificate corresponding to said information processing apparatus; and

a step in which said service provider provides services for said information processing apparatus on the condition that it is confirmed that the public key certificate used for said mutual authentication corresponds to an authorized user or device registered in said service registration server and said mutual authentication is established.

19. (original) A person authentication application data processing method according to Claim 12, wherein data communication between said information processing apparatus as a person authentication execution entity and the person identification certificate authority as a person identification certificate issuing entity is performed on the condition that the mutual authentication process is established.

20. (previously presented) A person authentication application data processing method according to Claim 12, wherein, for data communication between said information processing apparatus as a person authentication execution entity and the person identification certificate authority as a person identification certificate issuing entity, a data transmission device creates an electronic signature for transmission data, and a receiving device verifies the electronic signature.

21. (original) A person authentication application data processing method according to Claim 12, wherein an encryption key used to encrypt the template stored in the person identification certificate issued from said person identification certificate authority is a public key which is set for said information processing apparatus or an individual user.

22. (previously presented) An information processing apparatus for performing a person authentication process based on a verification process between a template extracted from a person identification certificate in which the template is stored and user input sampling information, the template being person identification data of an individual user who uses the information processing apparatus,

wherein said information processing apparatus performs a process for retrieving a person identification certificate used for a person authentication process based on user input information with stored data of the information processing apparatus being used as the retrieval target, outputs a request for issuing a person identification certificate to a person identification certificate authority, which is a person identification certificate issuing entity, when the information processing apparatus determines that the person identification certificate has not been received from the person identification certificate authority and stored locally in a local storage device of the information processing apparatus, and stores the person identification certificate issued from the person identification certificate authority in the storage device of the information processing apparatus.

23. (previously presented) An information processing apparatus according to Claim 22, wherein, in the process for storing the newly obtained personal identification certificate in the storage means, when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus performs a process for creating pair information of identifiers of each certificate and for storing the pair information in the storage device.

24. (previously presented) An information processing apparatus according to Claim 22, wherein said information processing apparatus retrieves a public key certificate used for data communication with an external apparatus with stored data of the storage device of the information processing apparatus being used as the retrieval target on the basis of user input information, creates a pair of a public key and a secret key when a corresponding public key certificate cannot be extracted, transmits the created public key to the certificate authority which is a public key certificate issuing entity, makes a request for issuing a public key certificate, and performs a process for storing the public key certificate issued from said certificate authority in the storage stores of the information processing apparatus.

25. (previously presented) An information processing apparatus according to Claim 24, wherein, in the process for storing the newly obtained personal identification certificate in the storage device, when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus performs a process for creating pair information of identifiers of each certificate and stores the pair information in the storage device.

26. (previously presented) An information processing apparatus according to Claim 24, wherein, in the process for storing the newly obtained personal identification certificate in the storage device, when said newly obtained person identification certificate is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus, said information processing apparatus performs a process for creating pair information of identifiers of each certificate, stores the pair information in the storage device, and registers together a process identifier which identifies a process such as services to be used.

27. (previously presented) A program providing medium for providing a computer program for causing a person application authentication data process for performing a person authentication process to be performed in a computer system based on a verification process between a template extracted from a person identification certificate in which the template is stored and user input sampling information, the template being person identification data of an individual user who uses an information processing apparatus, said computer program comprising:

- a step for retrieving a person identification certificate used for a person authentication process based on the user input information;

- a step for outputting a request for issuing a person identification certificate to a person identification certificate authority, which is a person identification certificate issuing entity, when the information processing apparatus determines that the person identification certificate has not been received from the person identification certificate authority and stored locally in a local storage device of the information processing apparatus;

a step for creating pair information of identifiers of each certificate when said person identification certificate issued from said person identification certificate authority is a person identification certificate corresponding to the same user for an existing public key certificate which has already been stored in said information processing apparatus; and
a step for storing the pair information in the storage device.